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ABSTRACT

This paper defines and discuss a number of basic concepts relevant to educational administration that form the basis for the Educational Management Project, a comprehensive inservice program for educational administrators that was developed by the Tucson Public Schools. Major topics discussed include educational management, the difference between an educational manager and an educational administrator, the systems approach to educational management, four major management principles and their derivative management functions, the components of a decision-making situation, and the relationship between decision-making and educational problem-solving. (Author/JG)

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THE EDUCATIONAL MANAGEMENT PROJECT

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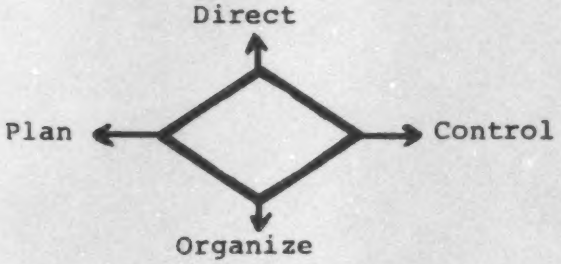

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CONCEPTS AND PRINCIPLES OF EDUCATIONAL MANAGEMENT: AN INTRODUCTION

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What is Educational Management?

The field of management has long been associated only with private enterprise, most typically with business and industrial enterprises whose goals are profit-oriented and whose activities focus on the production of material goods. Public institutions, on the other hand, aspire to achieve goals associated with the general public welfare and their activities center not on the production of material goods, but on the provision of specific public services. Private business executives have come to be known as "managers," while the executives of public institutions are typically referred to as "administrators." Because the goals, processes, and activities of private enterprises differ so markedly from the goals, processes, and activities of public enterprises, the distinction between management and administration has long been adhered to. Educators have gradually begun to question this distinction, however, and have discovered more similarities than differences between the management of private enterprise and the administration of public institutions.

Only within about the last ten years have educators begun to see the applicability of the concepts and principles of management science to the field of education. While the milieu in which management occurs may differ, the process of management is very much the same. Regardless of the nature of an organization's goals, regardless of the nature of its processes, and regardless of the nature of its activities, the process of guiding an organization in its efforts to achieve its goals involves a consistent set of tasks. This set of tasks defines the management process.

The manager of a business is charged with the responsibility of creating, maintaining and improving a production system that results in a tangible product or service of specified quality at minimal cost to the organization in terms of time and money. A manager of an educational organization is charged with the very different responsibility of creating, maintaining and improving an educational system that results in a number of people being educated to a specified degree at minimal cost to the public in terms of time and money. In both instances, the manager has the same tasks to perform and the same decisions to make. Management can be defined as the performance of specific tasks and the making of decisions for the purpose of creating, maintaining and improving a system. Educational management can then be defined as *the performance of specific tasks and the making of decisions for the purpose of creating, maintaining, and improving an educational system.*

Who is an Educational Manager?

What members of an educational organization are responsible for the performance of management tasks and the making of management decisions as defined above? The superintendent and

his immediate staff? Central office supportive personnel such as curriculum resource personnel, business and accounting officials, or student services personnel? Building principals? Teachers? All of these people make decisions, but all of them also execute or implement decisions made by others. All members of an educational organization can be considered "managers" to some degree. Ideally, all of them engage in the decision-making process which defines educational goals and determines the nature of the educational program which will be implemented to achieve these goals.

While each member of an educational organization is theoretically a manager, he is also an "administrator," meaning that he does not make decisions, but rather executes decisions made by managers. No superintendent can make decisions without considering policy decisions which have been made by county, state, and federal educational system officials. Likewise, no teacher can make decisions related to his classroom educational goals independent of decisions which have been made by principals, superintendents, county and state officials alike. Consequently, *administration* can be defined as *the execution of management decisions for the purpose of keeping the activities of that part of the educational system for which the administrator is responsible compatible with the goals of the total system.* (Cook, 1971)

Each member of an educational organization plays a dual role; he is simultaneously a manager and an administrator. Not all authors in the field of educational management distinguish "management" from "administration" but many distinguish the decision-making role from the decision-executing (or decision-implementing) role.

What is a System?

In both the definition of "management" and the definition of "administration" presented in the previous sections, mention is made of the term, "system." As an aid to the understanding and practice of the management process, educators have increasingly come to view the public school as a system. The "systems approach," so much referred to of late, represents a shift in the contemporary educator's conception of the school. It is a new way of looking at an educational organization regardless of its size or composition. To the educational administrator/manager interested in increasing his understanding of his role and responsibilities, the habit of thinking of a school as a system is indispensable.

A *system* is formally defined as *an orderly combination of interrelated and interacting parts which constitute a rational whole for the purpose of achieving commonly accepted and specific objectives.* A number of important principles related to the concept of a system can be derived from this definition: (a) Every system must be directed toward the accomplishment of

a set of explicit objectives; (b) Every part of a system must contribute to the accomplishment of the system's objectives; and (c) Every part of the system must relate and interact with the other parts of the system so that no effort is wasted and no vital task is left undone.

An educational system is any educational program or project which has been designed to promote learning and which complies with the above definition of a system. An entire school district's educational program may be thought of as a single system. So also may a state-wide or nation-wide educational program be thought of as an educational system. It should be evident that any educational program, regardless of its scope, is a system. Any given educational system is composed of a complex network of interrelated parts, each of which is both a distinct independent system and a dependent subsystem.

A school district's educational program is defined by the objectives it has been designed to achieve. Each of the components of this larger program has a part to play in the effort to achieve these educational objectives, whether the component is a particular instructional program in a single content area at a single grade level, or an instructional program for one of several elementary schools in the district, or a service unit that provides consultant services to the district's instructional staff for the purpose of improving school programs. Each of these components, like the larger system of which it is a part, is defined by the specific objectives the component has been designed to achieve. Consequently, a total school district's educational program, when viewed as a system, can be described in terms of a hierarchy of objectives, explicitly defined and functionally interrelated for the purpose of accomplishing the major objectives of the system.

The educational administrator/manager can develop and maintain an understanding of his role in the educational organization of which he is a member by viewing his organization as a system. To the degree that the organizational component for which he is responsible is a part of the total organization, he is an administrator and must execute management decisions made by others to keep his component's activities consistent with the objectives and activities of the total organization. To the degree that the component for which he is responsible is a system, with its own specific objectives to accomplish and its own program of activities, he is a manager and must make appropriate management decisions for the purpose of creating, maintaining, and improving the system for which he is responsible.

What Principles Govern the Process of Managing an Educational System?

An educational program may indeed be "an orderly combination of interrelated and interacting parts constituting a rational

whole for the purpose of achieving commonly accepted and specified objectives," but the mere satisfaction of these criteria does not guarantee the success of the program. Assuring program success in solving real educational problems is the fundamental goal of the management process. The tasks performed in the attempt to increase or assure a program's success are the tasks of the educational program manager.

The following four general principles apply to the management of any educational program (system) which has been designed to achieve commonly accepted and specific educational objectives.

1. *No educational system can be incompatible with the real needs of the students for whose benefit it was presumably created.* Every system must be designed to resolve real educational problems and must be directed toward the accomplishment of verified objectives, objectives which have been derived from the most important educational needs of the student and which are understood by the population of the system (students, parents, teachers, administrators/managers, etc.).

2. *No educational system can be dissociated from its organizational environment.* Every educational system is part of a larger system with which it must be compatible. Every such system is simultaneously a "rational whole" (see definition of "system") and one of the "parts" (subsystem) of a larger system which must relate to and interact with the other parts of the larger system. Every system must not only accomplish its own objectives but by doing so, it must also contribute to the accomplishment of the objectives of the larger system of which it is a part.

3. *No educational system can be dissociated from its human environment.* Every educational system must take into consideration the particular personal needs and values of all of the people who have a role to play in the operation of the system, either as managers, implementers or beneficiaries of the system. Management, when defined as a process of "getting things done through people," must necessarily regard the consideration of the human environment of the system as one of the basic requirements for a system's success.

4. *No educational system, just because it has been well planned, is automatically assured of accomplishing its objectives.* The integrity of a system, once established in design, must be preserved when the system is put into operation. Every system must be implemented in such a way that its actual accomplishments can be identified and compared to its planned accomplishments. When discrepancies occur that indicate that either the actual procedures or the planned procedures will not result in the accomplishment of the system's objectives, corrective action must be taken.

What Does an Educational Program Manager Do?

The definition of management presented earlier in this paper states that an educational program manager makes decisions for the purpose of creating, maintaining and improving a system which has been designed to solve real educational problems. Such a definition as this, however, does not reveal the complexity and variety of decision-making situations with which the educational manager must contend. Some practical frame of reference must be made available to the educational manager so that he can more readily recognize and analyze decision-making situations and relate them to the goal of the management process, that of assuring the success of educational progr ms.

Four major educational management functions have been derived from the principles governing educational systems discussed in the previous section. Together, these four management functions provide the educational manager with a useful guide for identifying and distinguishing the kinds of decisions he must make in order to effectively manage an educational program.

The *Planning Function* involves the making of decisions related to the establishment of a detailed plan for creating, maintaining and improving any particular educational program. Planning decisions result in the creation and/or definition of a system (or program) whose boundaries are determined by the objectives it has been designed to accomplish.

The *Organizing Function* involves the making of decisions related to the assignment of appropriate authority, responsibility and resources to those people who will manage and implement the planned program. Organizing decisions result in the creation of an organizational environment maximally conducive to the accomplishment of the objectives of the program.

The *Directing Function* involves the making of decisions related to the successful motivation of people who have a role to play in the management (planning, organizing, directing, and controlling) and implementation of a planned program. Directing decisions result in the optimal satisfaction of personal needs concurrent with the accomplishment of program objectives.

The *Controlling Function* involves the making of decisions related to the timely identification and correction of discrepancies between the program plan and actual program conditions. Control decisions result in the maintenance of program integrity, i.e., in greater assurance that the program will accomplish its objectives.

This concept of management as the making of planning, organizing, directing, and controlling decisions provides the perspective from which to view the "art" of management as defined by Harold Koontz (1964) in "The Management Theory Jungle":

> Management is the art of getting things done through and with people in *formally organized groups*, the art of creating an environment in such an organized group where people can perform as individuals and yet cooperate toward the attainment of group goals, the art of removing blocks to such performance, the art of optimizing efficiency in effectively reaching goals. (p. 16)

It is important to emphasize here that the plan-organize-direct-control scheme of analyzing the functions of the management process is not the only currently accepted one. Other categorization schemes exist which vary significantly in clarity, complexity, and comprehensiveness. Because there is no apparent consensus on the definition of the educational management process, there is also no consensus on the number and definition of management functions. And, as is often the case, semantic problems abound. Thorough investigation and comparison of some of the most widely supported theories of modern educational management have resulted in the conclusion that the systematic approach to educational management is the most logical and realistic perspective from which to view the complexities of the educational management process.

What is a Decision?

Any management decision, whether it be one of planning, organizing, directing, or controlling, necessarily results in the selection of a particular course of action. It is this act of selection or choice, at a given point in time, which constitutes a decision. Specifically, however, a decision is *a choice of the best course of action for reducing or eliminating any discrepancy between actual organizational performance and the objectives of the organization.*

Several principles may be derived from this definition of the concept of decision making.

1. *Decision making is not possible when only one alternative is available for solving a problem.* In order to choose the "best" alternative, the manager must have available for consideration at least two possible alternatives. Those situations where only one alternative is available for consideration are not management decision-making situations, but are instead, administrative decision-making situations. Executive action with no options constitutes administration, the execution of decisions made by other managers.

2. *Choosing the "best" course of action necessarily involves the application of some criteria of relative value to each course of action being considered.* These criteria should ideally be derived from the value system of the organization, that system of values held in common by the members of the organization and which is ultimately the base from which the organization's objectives are derived. In reality, however, the choice of the "best" course of action is too frequently made on the basis of personal values and beliefs held by the decision maker himself. A choice made without reference to organizational values and community values can result in ineffective and unwise decisions. A choice made without reference to either organizational values or the values of the decision maker is an arbitrary choice, a mere "flip of a coin."

3. *The appropriateness of the alternative solutions being considered is dependent upon the accuracy with which the discrepancy between actual organizational (system) performance and organizational objectives is identified and defined.* Appropriate alternative solutions to a problem can be generated only after the problem has been accurately analyzed. A manager's skill in decision making is dependent on his skill in identifying and analyzing problems. Effective problem analysis is possible only when the manager is aware of both the actual performance level of his organization and the specific objectives toward which his organization supposedly directs its efforts. Neither of these variables can be safely assumed or inferred; both must constantly be identified and verified.

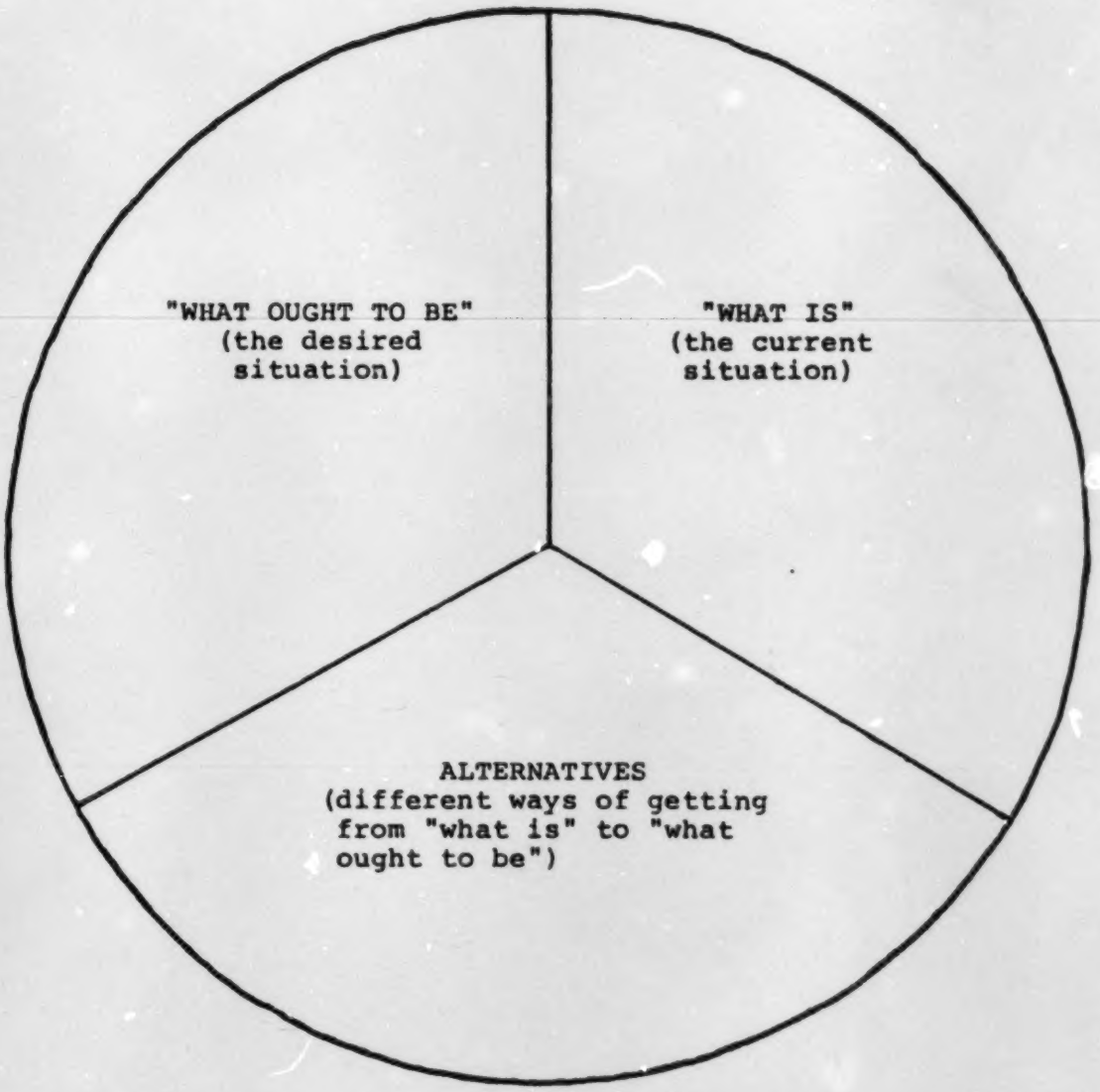
The figure on the following page depicts the components of an educational management decision situation. A decision cannot be made unless these three components of the situation have been accurately identified and defined.

The "what is" component of a decision situation is the specific information which describes the characteristics of the existing situation. Such information concerns generally the current level of accomplishment of a given system or any part of that system. Such information answers the questions, "Where are we now? How much are we currently accomplishing?"

The "what ought to be" component of a decision situation is the specific description of the expected or desired accomplishments of a system (or any part of the system). Such information usually defines, in terms comparable to those used to describe "what is," the objectives of the system. "What ought to be" information answers the questions, "Where should we be? What should we be accomplishing?"

The "alternatives" component of a decision situation is the information which is gathered about all the possible strategies for increasing the current level of accomplishment to the desired level of accomplishment. Such information provides the decision maker with a choice. There are usually numerous ways of solving a problem. It is the responsibility of the rational decision maker to identify and consider as many possible courses of action as possible.

COMPONENTS OF A DECISION SITUATION



No practicing educational manager would deny that decisions are sometimes made unwisely and sometimes prove ineffective when implemented. Such errors in decision making are costly to the educational system and damaging to the educational welfare of the students for whom the educational system was created. Chester I. Barnard (Koontz and O'Donnell, 1964), in "The Environment of Decision," emphasized the decision maker's responsibility for developing the skill of recognizing situations which require that decisions be made. He said,

> The fine art of executive decision consists in not deciding questions that are not now pertinent, in not deciding prematurely, in not making decisions that cannot be made effective, and in not making decisions that others should make. (p.83)

The effectiveness of a decision is always subject to the influence of error, haste, and uncertainty. Three important variables must be maximized in order to increase the likelihood that a decision will be appropriate, timely, and reliable:

1. The knowledge and expertise of the decision maker.
   a. The conceptual knowledge needed for understanding the problem and possible solutions.
   b. The human relations skills needed for working with all members of the organization whose agreement and support is needed for the successful implementation of the decision once it has been made.
   c. The technical skills needed for locating and utilizing all of the information that is necessary for effective decision making.

2. The time available to the decision maker. The amount of time devoted to the selection of the best course of action should be commensurate with the relative importance of the problem which needs to be solved. For example, more time must be made available for the making of decisions related to the long-range goals of a school's entire educational program than for the making of decisions related to short-range scheduling or personnel assignment problems.

3. The kind and quality of the information available to the decision maker. Pertinent information, both qualitative and quantitative, must be available to the decision maker that will help to reduce or eliminate uncertainty in the making of decisions about any course of action.

How is Decision Making Related to Problem Solving?

Once a given educational problem is identified and analyzed, and once possible problem solutions have been identified, a

decision can be made as to which proposed solution is likely to yield the most desirable results. This sequence of activities constitutes the decision-making process. At this point, however, the problem to be solved still exists.

The effectiveness of a decision can be determined only by evaluating its actual effect on the educational organization's ability to accomplish its objectives. Until the decision is implemented and some results obtained, the problem cannot be solved. Until the results of an implemented decision are identified and compared to the results projected at the outset, the decision maker will not know whether the problem is being solved or not. And when the decision maker obtains evidence that the proposed solution is not yielding the desired results, he must make and implement decisions to alter those conditions which are preventing the solution of the problem.

The problem-solving process includes the implementation, evaluation, and possible revision of strategic decisions as well as the decision-making process itself. An educational system's purpose is to solve important educational problems; the goal of the management process is to guide the educational organization toward the most efficient and effective solution of these problems. The essence of educational management is the selection, implementation, evaluation and continuous revision of strategies for solving important educational problems.

In order to avoid costly errors in the making of management decisions and in the implementation of decided courses of action, the educational manager needs a reliable tool at his disposal for approaching educational problems. Such a tool is the "design-process mode" of problem solving proposed by Roger A. Kaufman (1970). Kaufman's model is a six-step model which provides not only for the orderly, systematic solution of a problem, but also provides for the systematic identification of the problem to be solved.

Step 1. Identify problem (from needs)
Step 2. Determine solution requirements and solution strategies
Step 3. Select solution strategy
Step 4. Implement strategy
Step 5. Determine effectiveness of strategy
Step 6. Revise as required

Step 1 of Kaufman's model is in some respects the greatest departure from more traditional problem-solving processes. This step requires the systematic identification of needs, the ranking of those needs in their order of importance, and the selection of the most important needs as the problems to be solved by the system being designed. It is at this step that the goals of the system are defined and agreed upon.

Step 2 carries the problem-solving process further toward the selection of a solution to the problem(s) being addressed. Goals are further analyzed, subdivided and specified to the degree that specific performance requirements can be established. These performance requirements are the objectives of the system and guide the decision making which occurs throughout the following steps of the process. At Step 2 also, the possible means for accomplishing these objectives are identified.

In step 3, the process of selecting the solution strategy, the decision maker evaluates the possible strategies for solving the problem and selects one as the best plan of action. The consequences of each alternative being considered must be systematically projected or estimated. Usually such estimates involve determining the precise cost/benefit relationship for each alternative. The projection of consequences in a systematic manner makes it possible to eliminate or revise proposed solution strategies that may be more costly in terms of time and money than other strategies which would result in the same satisfactory outcomes.

Careful completion of the tasks in steps 1, 2 and 3 is necessary in order to assure the educational manager that the objectives to be accomplished are realistic and that the solution strategy for accomplishing these objectives is the most appropriate. Kaufman emphasizes the central importance of these tasks in stating that other problem-solving models are generally too "solution-oriented" and do not provide for the systematic validation of educational objectives. He warns, "An educational activity may be managed with precision and accuracy; but if its objectives are not valid, the result may be educational ruin arrived at in an orderly, precise and efficient manner." (p. 135)

In step 4, the implementation of the selected process, the selected plan is put into actual operation. Careful monitoring of the implementation process is necessary to make sure that all activities are conducted as planned. Errors and misunderstanding of implementation procedures can result in the failure of the best-planned strategies to produce the desired learning outcomes. Too frequently well-conceived educational programs are abandoned as unsuccessful experiments because the planned procedures were improperly implemented or not implemented at all. For this reason, the educational manager must not merely give instructions to "implement as planned," but he must also make sure that those who will implement a planned program understand it correctly and possess or acquire the necessary skills for implementing the program.

In step 5, the assessment of the outcomes of the implemented program, actual outcomes are identified and measured as precisely as possible and then are compared to the expected outcomes. Any discrepancies between the actual and expected

outcomes are calculated and analyzed. Requirements for reducing or eliminating these discrepancies are defined and precisely specified.

In step 6, the initial plan is modified to the degree necessary to meet the requirements for reducing the identified discrepancies between actual outcomes and expected outcomes. This modified plan is then implemented and evaluated in the same systematic manner as was the first strategy.

Kaufman's six-step problem-solving model is a "closed loop" or self-correcting model. He emphasizes that

> ...evaluation and decision making occur at each step of the process, not only at step 5. Each step requires a product that must be achieved before the next step begins. (p. 139)

The use of this system approach to the solution of educational problems minimizes the possibility that"prepackaged" solutions will be decided upon before the most important needs of the students to be served have been identified. It provides for the timely identification and revision of sources of potential program failure and provides the educational manager with a useful tool for understanding and managing the complex relationships of the components of an educational system.

Kaufman lists several assumptions upon which his six-step system approach is based:

1. Needs can be identified and ultimately stated in measurable terms.
2. Human beings learn, and the type of learning opportunities and stimuli provided them can determine, at least, the direction of this learning.
3. A systematic approach to educational problem solving will result in measurably greater effectiveness and efficiency than will any other approach presently available.
4. Attitudes and behaviors can be specified in measurable terms, at least by indicating the type of behavior required.
5. It is better to try to state the existence of something and attempt to quantify it than it is to proclaim that it is nonmeasurable and to leave its existence and accomplishment still in question.
6. There is often a difference between hope and reality.
7. Teaching does not necessarily equal learning. (The teaching act and the learning act are different.)
8. Areas of education that seem to defy quantification in system design are prime areas for research.
9. A self-correcting System Approach has greater utility than an open-loop process for achieving responsive education.

10. No system or procedure is ever the ultimate system. A System Approach, like any other tool, should constantly be challenged and evaluated relative to other alternatives, and should be revised or rejected when other tools are more responsive and offer greater utility.

The six-step problem-solving model, as well as the decision-making model and the definitions of the four management functions discussed earlier, should not be viewed as artificial schemes for reducing the complex realities of the educational management process to a series of simple formulas. They should instead be viewed as tentative frames of reference for helping the educational manager acquire a clearer understanding of the numerous, and sometimes puzzling, relationships between and among the many components of an educational system. With a better understanding of the system for which he is responsible, the educational manager is better able to predict the probable impact of his decisions on the system as a whole and on its ability to more effectively and efficiently solve real educational problems. Systematic problem solving will result in greater control of the outcomes of the educational process, and the management of educational programs can proceed less by rules of thumb and guesswork then by rational, well-informed, and more effective decision making.

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